

# **Harford County Government**

## **Stormwater Management Construction Inspections**

The engineer-in-charge is responsible for conducting site inspections for the construction of the stormwater management facility.

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Site Location

The following information is required to be completed by the engineer-in-charge. Failure to submit this information may require part of the facility to be reconstructed. This document is provided to clarify certain requirements of construction and is supplemental to any other requirements imposed by applicable law, rules and regulations.

### **Pre-Construction Meeting**

The engineer-in-charge or his representative and the contractor/superintendent shall attend the pre-construction meeting. The County must be notified in writing immediately, should the engineer-in-charge change during the construction of the stormwater management facility.

### **Inspection Reports**

A daily inspection report shall be completed by the engineer-in-charge or his representative and must include the following information:

- Site location name
- Inspection date
- Name and signature of the inspector
- Daily temperature
- Problems encountered and the subsequent solutions
- Proctor tests and curves, soil classifications, soil gradations with the plasticity index indicated
- Source of materials – example: pipe distributor name; borrow site
- Pipe certification (this may be a shipping ticket or a letter from the manufacturer)
- Principal spillway diameter, gaskets and coupling bands dimensions
- Structure measurements – steel spacing, pipe lengths, mud slab dimensions, riser slab dimensions, etc.
- Principal spillway connections (gasket types and widths); coupling band widths

- PVC diameter, length and schedule type (filter diaphragms)
- Filter diaphragm sand source and gradation; width, depth and length of excavation
- Daily compaction reports
- Pictures as applicable<sup>1</sup>

The inspection reports shall be maintained by the engineer-in-charge or his representative throughout the construction of the stormwater management facility. The inspection reports shall be made available upon request by the County who may visit the site periodically during construction. An inspection will be scheduled as soon as the stormwater facility is constructed to ensure all quality control reports are complete and any questions are resolved. Should the County visit the site and observe that the engineer-in-charge or his representative is not on site to provide construction inspection, the County may issue a stop work order.

### **As-Built Submission**

The engineer-in-charge shall submit the inspection reports, as-built drawings and computations to the County within thirty (30) days of the completion of the stormwater management facility.

The County will review all submitted material and perform a field inspection of the facility. Comments concerning the submitted documents and the facility will be returned to the engineer-in-charge. After all comments have been addressed the County will recommend acceptance of the facility.

The following information is required as part of the as-built submission:

- Engineer signature on the as-built certification note.
- Check marks if item was installed as designed or necessary changes shown in red.
- If the elevations of the structure differ from the original plan by two-tenths of a foot or more, the excavated volume is less than designed or the hydrology changes, updated TR-55, stage-storage and TR20 computations shall be submitted as applicable.
- Compaction certification from the geotechnical engineer. This will include the compaction of the ground beneath the riser (stability) as well as the fill for the dam.
- Concrete break test results for the riser or weir walls, if cast in place.
- Concrete tickets for cradles, headwalls and endwalls (swm structures).
- The inspection reports.

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<sup>1</sup> Pictures shall be taken during the following constructions phases: 1) pipe installation; 2) riser construction; 3) cut-off trench; 4) anti-seep collars; 5) anti-flotation base for riser; 6) filter diaphragm installation; 7) underground storage pipe/stone placement; 8) pipe connections to riser and/or other modified stormwater structure; and 9) filter cloth placement around dewatering pipes and in underground storage.

We have received and read the above requirements and understand the responsibilities of the engineer-in-charge for the completion of the construction inspections and failure to do so may cause difficulty in as-built approval and/or require parts of the facility to be reconstructed.

Contractor/Superintendent (printed)	Engineer-in-charge (printed)
Signature	Signature
Telephone/Fax Number	Telephone/Fax Number
Email Address	Email Address
Date	Date
Owner/Developer (printed)	<div>COMAR Section 26.17.02.10 <a href="http://www.dsd.state.md.us/COMAR/getfile.aspx?file=26.17.02.10.htm">http://www.dsd.state.md.us/COMAR/getfile.aspx?file=26.17.02.10.htm</a></div>
Signature	<div>Maryland Dam Safety Regulations MD 378 <a href="http://www.mde.state.md.us/programs/Water/StormwaterManagementProgram/MarylandStormwaterDesignManual/Documents/www.mde.state.md.us/assets/document/sedimentstormwater/Appnd_B1.pdf">http://www.mde.state.md.us/programs/Water/StormwaterManagementProgram/MarylandStormwaterDesignManual/Documents/www.mde.state.md.us/assets/document/sedimentstormwater/Appnd_B1.pdf</a></div>
Telephone/Fax Number	
Email Address	<div>Maryland 2000 Design Manual <a href="http://www.mde.state.md.us/programs/Water/StormwaterManagementProgram/MarylandStormwaterDesignManual/Documents/www.mde.state.md.us/assets/document/Design%20Manual%20Chapter%205%2003%2024%202009.pdf">http://www.mde.state.md.us/programs/Water/StormwaterManagementProgram/MarylandStormwaterDesignManual/Documents/www.mde.state.md.us/assets/document/Design%20Manual%20Chapter%205%2003%2024%202009.pdf</a></div>
Date	

\*\*If the engineer-in-charge changes, then a change of AUTHORIZATION FORM must be filled out and returned to the Department of Public Works, BCM Inspections.

cc: Harford County Bureau of Construction Inspections  
Harford County Bureau of Water Resources